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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/275,934	03/24/1999	MARK WILLIAM JANOSKA	1400.4100209	1410

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EXAMINER	
HOANG, THAI D	

ART UNIT	PAPER NUMBER
2667	15

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/275,934	JANOSKA ET AL.	
	Examiner	Art Unit	
	Thai D Hoang	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *24-27* is/are allowed.

6)☒ Claim(s) *1-5,7-9 and 11-21* is/are rejected.

7)☒ Claim(s) *6,10,22 and 23* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 7-9, 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto, U.S patent No. 6,075,767.

Regarding claims 1 and 15, Sakamoto discloses a system having a redundant architecture for switchover to a line interface. Sakamoto discloses that the system comprises a switch core (2), wherein the switch core has a plurality of inputs and a plurality of outputs, wherein the switch core passes data received on the plurality of inputs to the plurality of outputs based on routing tags (col. 1, lines 13-17; col. 2, lines 19-22; col. 9, lines 8-11; col.13, lines 4-6); and a plurality of line card managers (3) operably coupled to the switch core (2) and adapted to couple to a plurality of line card pairs (1-1 and 1-2), wherein each line card manager includes an arbiter (9) that couples to a first line card and a second line card of a line card pair, wherein each line card manager couples to a different line card pair, wherein each arbiter is operably coupled to a corresponding input of the plurality of inputs of the switch core, wherein the arbiter provides ingress data from one of the first and second line cards to the corresponding input to the switch core based on selection information (figures 1 and 17; col. 7, line 40 -

col. 8, line 67.) Sakamoto does not explicitly disclose that the line card manager (3) includes a router. However, Sakamoto discloses that the first and second line cards (1-1 and 1-2) comprise a routing function (col. 2, lines 20-22; col. 9, lines 8-11; col. 12, lines 50-55; col.13, lines 4-6), which provides egress data from the corresponding output to the first and second line cards based on routing information included in the egress data (fig. 3, col. 2, lines 23-25).It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the routing function in the first and second line cards disclosed by Sakamoto into the line card manager in order to simplify the structure and reduce the cost of the system.

Regarding claims 2, 3, 16 and 19, Sakamoto does not disclose that each line card manager further comprises buffering circuitry operably coupled to the arbiter, wherein the buffering circuitry buffers ingress data from the first and second line cards, wherein the arbiter provides ingress data from the buffering circuitry to the switch core based on the selection information. However, buffers are used in most of telecommunications systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a buffer into the system disclosed by Sakamoto in order to control data flow in the system.

Regarding claims 4 and 17, Sakamoto discloses that the selection information determines an active line card and an inactive line card of the line card pair, wherein the arbiter preferentially passes active line card data over inactive line card data (col. 8, lines 28-67.)

Regarding claims 5 and 21, Sakamoto discloses that the redundant line card becomes active line card when a defect or failure is detected in the first line card (col. 1, lines 48-52; col. 2, lines 27-33; col. 7, line 62 – col. 8, line 8.) inactive line card data is selected when idle data in active line card is detected.

Regarding claims 7 and 20, the system disclosed by Sakamoto inherently comprises filters operably coupled to the arbiter (9), wherein the filters pass selected data types and reject other data types in order to select useful signals (col. 8, lines 28-33, and 53-59.)

Regarding claim 8, Sakamoto discloses that the register (27) that determines the selected data types.

Regarding claim 9, the register (27) in the line card manager (3) of the system disclosed by Sakamoto inherently comprises active register and an inactive register, wherein the active register configures a filter corresponding to the active line card, and the inactive register configures a filter corresponding to the inactive line card (figures 1 and 7; col. 7, line 62 – col. 8, line 8.)

Regarding claim 11, the system disclosed by Sakamoto comprises a NxN switch core and the plurality of line cards includes 2N line cards (figures 1-4 and 17.)

Regarding claims 12-14, Sakamoto discloses that the system comprises an ATM switch; therefore, it is used in a cell based network.

Regarding claim 18, Sakamoto discloses a system having a redundant architecture for switchover to a line interface (figure 1). Sakamoto discloses that the system comprises the steps of selecting ingress data from data received from a first line

card and a second line card, wherein selecting is based on an active select signal, wherein the active select signal determines an active line card and an inactive line card from the first and second line cards; providing the ingress data to an input of a switch core, wherein the switch core includes a plurality of inputs and a plurality of outputs; receiving egress data from one of the plurality of outputs of the switch core; and selectively providing the output data to at least one of the first and second line cards based on routing information included in the egress data (figures 1,12 and 17; col. 7, line 40 - col. 8, line 67.) Sakamoto does not explicitly disclose that the line card manager (3) includes a router. However, Sakamoto discloses that the first and second line cards (1-1 and 1-2) comprise a routing function (col. 2, lines 20-22; col. 9, lines 8-11; col. 12, lines 50-55; col.13, lines 4-6), which provides egress data from the corresponding output to the first and second line cards based on routing information included in the egress data (fig. 3, col. 2, lines 23-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the routing function in the first and second line cards disclosed by Sakamoto into the line card manager in order to simplify the structure and reduce the cost of the system.

Allowable Subject Matter

Claims 6, 10 and 22-23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 24-27 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Sakamoto et al., US Patent No. 6,075,767 disclose an ATM handler.

Each independent claim of the present application discloses the following features:

A method for managing line cards in a switch that includes redundant line cards, comprising: a first line card and a second line card, wherein the switch provides egress data to at least one of the first line card and the second line card based on a routing information included in the egress data; *wherein the routing information included in the egress data further comprises a first bit and a second bit, wherein when the first bit is active the egress data is provided to the active line card, and wherein when the second bit is active, the egress data is provided to the inactive line card* as recited in claims 24 and 27; or

wherein the routing information included in the egress data further comprises a first bit and a second bit, wherein when the first bit is active the egress data is provided to the first line card, and wherein when the second bit is active, the egress data is provided to the second line card as recited in claims 25 and 26.

Sakamoto et al. do not teach or fairly suggest the features as shown above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Thai Hoang

CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 12/8/03